

## **REMARKS**

By this amendment, Applicants have amended the specification to correct minor typographical errors to put a period at the end of sentence indicated by the Examiner. Applicants have also amended claims 1 and 10 to include the features of claim 9 that the catalyst arrangement and method comprises an open-pored, porous carrier that is a wall flow filter. Claims 9 and 11 have been canceled. None of these amendments adds new matter. Applicants respectfully request entry of these amendments and allowance of the pending claims.

### **I. Objection To Declaration**

The Examiner objected to the declaration for being defective for having alterations without them being initialed and dated. In response, Applicants submit a new declaration without any alterations in compliance with 37 CFR 1.67(a). Therefore, this objection is now moot.

### **II. Objections To The Specification**

The Examiner objected to the specification for not having a period after the Brief Description Of The Figures section. In response, Applicants have amended the specification to correct minor typographical errors to put a period at the end of sentence indicated by the Examiner. Therefore, this objection is now moot.

### **III. Claim Rejections Under 102(e)**

The Examiner rejects claims 1-11 under 35 U.S.C. 102(e) as allegedly being anticipated by U.S. Patent No. 7,332,135 (Gandhi). Applicants respectfully traverse this rejection.

Applicants have amended claim 1 to include that the catalyst arrangement comprises an open-pored, porous carrier that is a wall flow filter. Therefore, one of ordinary skill in the art on reading the claims would know that the claims include a coated wall-flow filter substrate, wherein the catalyst layer coated on the entry surface is

coated into the inlet channels of the filter substrate, whereas the catalyst layer coated on the exit surface is coated into the outlet channels of the filter substrate.

Figure 1 of the present application, which shows this design, is reproduced below for convenience of the Examiner.

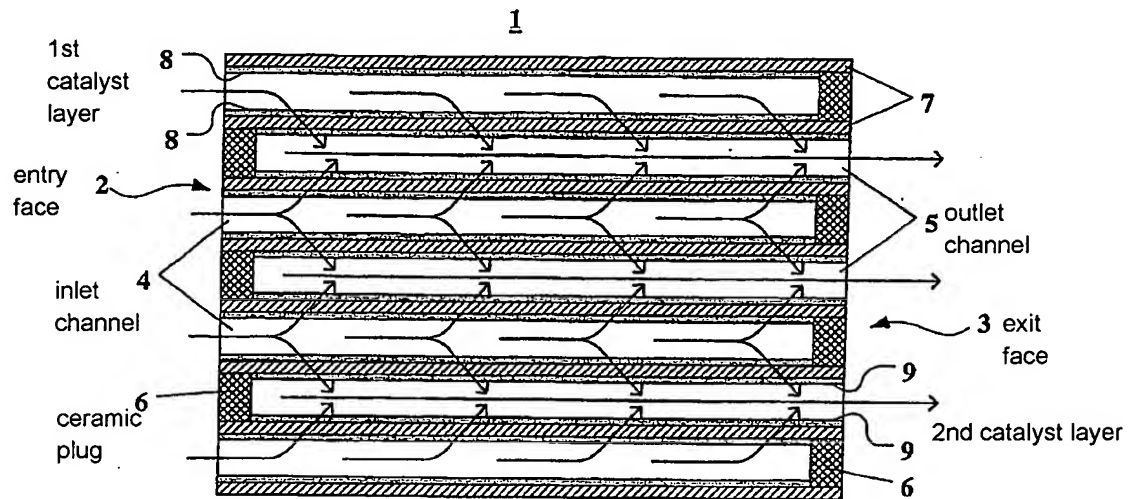


Figure 1

As stated in the current application:

[0016] FIG. 1 shows a cross section through the catalyst arrangement of the invention using a wall flow filter as carrier. A wall flow filter has a similar structure to the known honeycomb catalyst carriers made of a ceramic material. Such a honeycomb carrier (1) has a large number of closely spaced flow channels (4, 5) for the exhaust gas which pass through it from an entry face (2) to an exit face (3). **In a wall flow filter, these flow channels are alternately closed by a ceramic plug (6), so that inlet channels (4) and outlet channels (5) are formed.** Owing to this construction, the exhaust gas has to pass through the porous dividing walls (7) between the flow channels on its way from the entry face to the exit face of the carrier. **The entry surface for the exhaust gas is in this case formed by the wall surfaces of the inlet channels (4) and carries the first catalyst layer (8).** The wall surfaces of the

**outlet channels form the exit surface and are coated with the second catalyst layer (9).**

(Applicants' specification as published at paragraph 16, and emphasis added). Therefore, reading the specification in conjunction with the claims, the coated wall-flow filter substrate has the catalyst layer coated on the entry surface into the inlet channels of the filter substrate, and the second catalyst layer coated on the exit surface is coated into the outlet channels of the filter substrate. Gandhi simply does not disclose this arrangement and does not make it obvious.

Gandhi discloses a catalyst system, which simultaneously removes ammonia and enhances net conversion by placing a  $\text{NH}_3$ -SCR catalyst formulation downstream of a lean  $\text{NO}_x$  trap (see Gandhi's Abstract, and lines 1 - 2). Several other embodiments are disclosed in Gandhi where both catalysts are applied to one single substrate, but as zoned-coated catalyst (Gandhi col. 3, lines 51 - 62, and Figures 4a/4b/4c). Figures 7a, 7b and 7c of Gandhi disclose three further examples of wash coat configurations incorporating the lean  $\text{NO}_x$  trap and the  $\text{NH}_3$ -SCR catalyst formulations into the same substrate. Figures 7a and 7b show layered embodiments, and Figure 7c shows an example where the  $\text{NO}_x$  trap and  $\text{NH}_3$ -SCR catalysts are applied in one wash coat layer as a homogenous mixture. These are different arrangements than Applicants' coated wall-flow filter substrate having the catalyst layer coated on the entry surface into the inlet channels of the filter substrate, and the second catalyst layer coated on the exit surface is coated into the outlet channels of the filter substrate.

Further, Gandhi teaches about his invention:

The invention also contemplates engineering such combinations within pores of the monolithic substrate, an example of this is incorporating wash coat into porous substrates used for filtering diesel particulate matter. Thus, this lean  $\text{NO}_x$  trap/ $\text{NH}_3$ -SCR catalyst concept can be integrated into diesel particulate matter devices.

(Gandhi col. 9, line 66 - col. 10, line 4) Therefore, on a fair and accurate reading of Gandhi, and especially the teaching of Figures 4a/4b/4c and 7a/7b, one of ordinary skill in the art would build up either a zone-coated diesel particulate filter where e.g., a wired

mesh substrate or a ceramic foam substrate is used as a filter body, or one would build up a wall-flow filter substrate where both catalyst formulations are coated one onto each other (as shown in Fig. 7a/7b) in the inlet channels of the wall-flow filter substrate. This is different from the current application.

Moreover, Applicants took what would be considered the closest catalyst solution as taught by Gandhi in their comparative example 3. The NO<sub>x</sub> conversion of a catalyst solution as taught in Gandhi was lower than Applicants' NO<sub>x</sub> conversion of a coated wall-flow particulate filter according to current application. Therefore, Applicants respectfully submit that Gandhi does not anticipate and he does not make the current claims obvious. Applicants respectfully request that the rejection under 35 U.S.C. §102(a) be reconsidered and withdrawn.

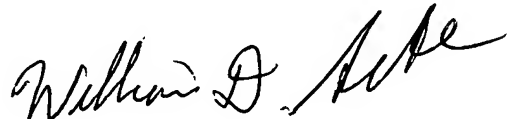
#### **IV. Conclusion**

Reconsideration and allowance are respectfully solicited

No fee is believed to be due with respect to filing this amendment. If any additional fees are due, or an overpayment has been made, please charge, or credit, our Deposit Account No. 11-0171 for such sum.

If the Examiner has any questions regarding the present application, the Examiner is cordially invited to contact Applicants' attorney at the telephone number provided below.

Respectfully submitted,



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